

REMARKS

Claims 1 through 20 are pending in the subject application. Claims 1-13 stand rejected under 35 U.S.C. 112, first paragraph. Claims 1-3, 5-7, 9-13, and 20 stand rejected under 35 U.S.C. 103(a). Claims 14-19 have been allowed. Claims 4 and 8 have been objected to, but are otherwise allowable.

The Applicants appreciate the Examiner's thorough examination of the subject application. However, the Applicants respectfully request reconsideration of the subject application based on the following remarks.

35 U.S.C. § 112, FIRST PARAGRAPH REJECTIONS

The Examiner has rejected claims 1-13 under 35 USC 112, first paragraph for failing to comply with the written description requirement. Specifically, the Examiner asserts that the specification does not disclose that the light emitting section is switched ON-OFF exactly once. The Applicants respectfully disagree.

According to the specification,

As shown in Figure 1B, the ON-OFF timing of a backlight is as follows. In each of first, second, and other display frames, the backlight is OFF in a period of time during which driving voltages are applied to picture elements on scanning lines (addressing scan period from t_1 to t_n). After the addressing scan period and a subsequent intervening period (from t_n to t_{b1}), the backlight is ON until the end of the display frame. This ON-OFF timing of the backlight is repeated for each display frame.

Specification, page 30, line 20 to page 31, line 3. Thus, the light emitting section is OFF for a period of time during the address scanning period and, after the address scanning period (and subsequent intervening period), the light emitting section is turned ON until the end of the display frame. Therefore, the light emitting section is ON-OFF exactly once in a display period.

Moreover, FIGs. 1A to 3B of the present invention clearly show that the light emitting section is ON-OFF exactly once in each display frame. Indeed, FIGs. 1A to 3B do not show ON-OFF-ON or OFF-ON-OFF during a display frame. The cited passage and Figures 1A to 3B make it clear that the light emitting section is switched ON-OFF once and only once, i.e., exactly once, during each display period.

Accordingly, it is respectfully submitted that, claims 1-13 satisfy all of the requirements of 35 U.S.C. 100, et seq., especially § 112, first paragraph. Accordingly, claims 1-13 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

35 U.S.C. § 103(a) REJECTIONS

The Examiner has rejected claims 1-3 under 35 USC 103(a) as being unpatentable over U.S. Patent Number 5,402,143 to Ge, et al. ("Ge" or the "Ge Reference") in view of Japanese Laid-Open Published Patent Application 60-297466 to Tanabe ("Tanabe" or the "Tanabe Reference"); claims 5-7, 9, and 10 under 35 USC 103(a) as being unpatentable over Ge in view of Tanabe, further in view of U.S. Patent Number 6,115,016 to Yoshihara, et al. ("Yoshihara" or the "Yoshihara Reference"); and claims 11-13 and 20 under 35 USC 103(a) as being unpatentable over Ge in view of Tanabe, further in view of U.S. Patent Number 6,317,181 to Hoshino ("Hoshino" or the "Hoshino Reference"). The Applicants respectfully traverse these rejections for the reasons provided in greater detail below:

Claims 1-3

The Ge reference teaches a "hold type" display device that combines a liquid crystal device ("LCD") for controlling light transmittance with an electro-luminescence device ("ELD") that provides back lighting. The Ge ELD comprises a cathode 90 and grid electrodes, which are divided into sub-chambers. See, e.g., Ge, col. 5, lines 44-51. Control means applies voltage to the cathode and grid electrodes so that light from the ELD is emitted to the LCD at the same time that the row (scan or gate) electrodes 54 of the LCD are being scanned. See, e.g., Id., col. 5, lines 51-58. Accordingly, in contrast with the invention as claimed, address scanning and lighting occur at the same time. Therefore, address scanning does not take place while the light emitting section is in the OFF state. Thus, the Ge reference expressly teaches away from the claim 1 recitation.

Additionally, FIG. 12 of Ge shows the relative timing of the LCD scanning or reference pulses, the EFBL pulses, and the LCD transmittance. The time t' is the time at which a scanning cycle ends so that the next scanning cycle is for the next row of pixels. See, e.g., Id., col. 12, lines 34-50. Thus, FIG. 12 clearly shows that the EFBL, i.e., light emitting section, is ON while the scanning cycle is still operable.

Nor can the Tanabe make up for the deficiencies of the Ge reference. Specifically, Tanabe also does not teach, mention or suggest that, performing address scanning while the light emitting section is in the OFF state.

Therefore, it is respectfully submitted that, claims 1-3 are not made obvious by the cited references, and further, satisfy all of the requirements of 35 U.S.C. 100, et seq., especially § 103(a). Accordingly, claims 1-3 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 5-7, 9, and 10

Nor can the Yoshihara reference make up for the deficiencies of the Ge reference. Specifically, Yoshihara also discloses that back light is displayed "in each display period in synchronization with the on/off operation of each switching element." Yoshihara, col. 4, lines 5-6. Thus, like Ge, address scanning and lighting occur at the same time.

Therefore, it is respectfully submitted that, claims 5-7, 9, and 10 are not made obvious by the cited references, and, further, satisfy all of the requirements of 35 U.S.C. 100, et seq., especially § 103(a). Accordingly, claims 5-7, 9, and 10 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 11-13 and 20

The deficiencies of the Ge and Tanabe references have been discussed above. Moreover, the Hoshino reference cannot make up for the deficiencies of these references. Specifically, the Hoshino reference does not teach, mention or suggest that, address scanning occurs while the light emitting section is in the OFF state.

Accordingly, it is respectfully submitted that, claims 11-13 and 20 are not made obvious by any of the cited references, and further, satisfy all of the requirements of 35 U.S.C. 100, et seq., especially § 103(a). Accordingly, claims 11-13 and 20 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

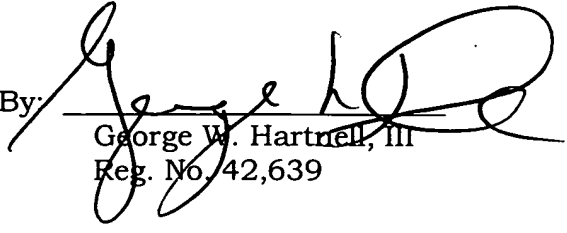
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The Applicants believe that no additional fee is required for consideration of the within Response. However, if for any reason the fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

Date: August 31, 2004

By: _____


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